

obtaining information on a financial plan including a time horizon of a plural number of

investment periods from the time of an initial investment through times of withdrawals for meeting goals, amounts to be invested in a plurality of the periods, at least a first withdrawal amount to be withdrawn for a goal in a period before the end of the time horizon, and an amount of a final wealth goal at the end of the time horizon; and information on a plurality of investment categories including expected return rates, return-rate standard deviations, and correlation coefficients for the individual investment period;

identifying a series of investment portfolio plans from more conservative to more

aggressive, comprising portfolios each with a different expected return rate and a return-rate standard deviation for the individual period, each portfolio comprising a mix of investment categories diversified to offer its expected return rate with smallest or nearly smallest return-rate standard deviation;

developing for each portfolio plan, through simulation, a probability distribution for the final

wealth for the financial plan with that portfolio plan, each simulation proceeding period by period through the time horizon, each period adding any amounts to be invested in that period, subtracting any amounts to be withdrawn in that period, and applying for each portfolio a return rate determined for that period based on the portfolio's expected return rate and return-rate standard deviation, the simulations and probability distributions providing a basis for comparing the portfolio plans in various aspects of prospects for the financial plan and goals including probability that the final wealth result will be at least as great as the final wealth goal, probabilities for how far above the goal the final wealth result may be, probabilities for how far below the goal the final wealth result may be, and prospects for period-by-period path of value variation and development through the time horizon; and

providing at least a first comparison of the portfolio plans in a first criterion, that criterion

being probability that the final wealth will meet or exceed the goal, revealing which of the portfolio plans are best and close to best with respect to the first criterion, to inform

the investor for selecting portfolio plans for comparison in other aspects of prospects for the plan and goals, selection of a portfolio plan the investor judges optimal for his plan, goals, and priorities, and the investor's informed commitment to the choice.

5. (Amended) A method, as claimed in claim 1, wherein:

said [obtaining] identifying step includes displaying identifications of a number of investment categories from which the user may choose [said] a plurality of investment categories.

6. (Amended) A method, as claimed in claim 5, wherein:

said displaying step includes displaying [said] data on return rates of said investment categories.

Please cancel Claim 8 without prejudice or disclaimer of the subject matter contained therein.

Please cancel Claim 10 without prejudice or disclaimer of the subject matter contained therein.

15. (Amended) A method, as claimed in claim 1, wherein:

said [providing] identifying step includes applying concepts of Modern Portfolio Theory using [said] data on return rates of [said] a plurality of investment categories to obtain information defining an efficient frontier curve on a graph, said curve comprising a range of portfolio points [each] representing a number of [best-diversified] portfolios [in said population] offering various expected return rates with smallest return-rate standard deviations.

17. (Amended) A method, as claimed in claim 1, wherein:

said [population of] portfolios includes only portfolios having allocation proportions that conform to at least a first allocation constraint defining a minimum or maximum total allocation proportion for each of a number of said investment categories.

18. (Amended) A method, as claimed in claim 1, wherein:

said [population of] portfolios includes only portfolios in which the allocation proportions of said investment categories are integer multiples of an integer allocation percentage increment.

**23. (Amended)** A method, as claimed in claim 22, wherein:

said information includes allocation proportions for each of a plurality of portfolios [in said population] determined to best correspond to said first chosen portfolio point.

Please cancel Claim 31 without prejudice or disclaimer of the subject matter contained therein.

Please cancel Claim 33 without prejudice or disclaimer of the subject matter contained therein.

**34. (Amended)** A method, as claimed in claim [33] 1, wherein:

said [producing step] simulation includes determining separately for each investment period of each simulation a return rate for at least a first portfolio of said portfolio plan for said investment period by random selection from a probability distribution for the return rate of said portfolio.

**39. (Amended)** A method, as claimed in claim [33] 1, wherein:

said [producing step] simulation includes for each simulation determining a return rate for each portfolio in a portfolio plan in each investment period of said time horizon by random selection of a historical investment period using actual historical return rates of investment categories for the selected historical investment period.

**40. (Amended)** A method, as claimed in claim [33] 1, wherein:

said [producing step] simulation includes for each simulation using historical return rates of investment categories for a series of consecutive historical investment periods equal in number to the number of investment periods in said time horizon.

**41. (Amended)** A method, as claimed in claim [33] 1, wherein:

said [producing step] simulation includes determining values of a number of items in said financial plan by random selection from probability distributions of values of said items.

42. (Amended) A method, as claimed in claim [33] 1, wherein:

said [producing] developing step includes grouping final wealths produced by said simulations according to a scale of value increments to develop a final wealth frequency distribution, interpreting said final wealth frequency distribution as a final wealth probability distribution, and using said probability distribution to determine specifications of said probability distribution such as the expected final wealth or the median final wealth, the probability that the final wealth will equal or exceed a value, or the largest value that the final wealth has a probability of equaling or exceeding.

Please cancel Claim 43 without prejudice or disclaimer of the subject matter contained therein.

69. (Amended) A method, as claimed in claim 1, wherein:

said obtaining step includes providing a user interface on a screen of a computer or other electronic device for user selectable display of said information including entry boxes in which the user may make entries or changes in said information and buttons or other interaction objects by which the user may make selections pertaining to said information, said investment categories, said portfolios, and said portfolio plans.

71. (Amended – completely rewritten) An apparatus that relates to finding best investment portfolio plans for long-term financial plans and goals, comprising:

computer memory for storing information on a financial plan including a time horizon of a plural number of investment periods from the time of an initial investment through times of withdrawals for meeting goals, amounts to be invested in a plurality of the periods, at least a first withdrawal amount to be withdrawn for a goal in a period before the end of the time horizon, and an amount of a final wealth goal at the end of the time horizon; and information on a plurality of investment categories including expected return rates, return-rate standard deviations, and correlation coefficients for the individual investment period; and  
at least a first computer processor for:

identifying a series of investment portfolio plans from more conservative to more aggressive, comprising portfolios each with a different expected return rate and a return-rate standard deviation for the individual period, each portfolio comprising a mix of investment categories diversified to offer its expected return rate with smallest or nearly smallest return-rate standard deviation;

developing for each portfolio plan, through simulation, a probability distribution for the final wealth for the financial plan with that portfolio plan, each simulation proceeding period by period through the time horizon, each period adding any amounts to be invested in that period, subtracting any amounts to be withdrawn in that period, and applying for each portfolio a return rate determined for that period based on the portfolio's expected return rate and return-rate standard deviation, the simulations and probability distributions providing a basis for comparing the portfolio plans in various aspects of prospects for the financial plan and goals including probability that the final wealth result will be at least as great as the final wealth goal, probabilities for how far above the goal the final wealth result may be, probabilities for how far below the goal the final wealth result may be, and prospects for period-by-period path of value variation and development through the time horizon; and

providing at least a first comparison of the portfolio plans in a first criterion, that criterion being probability that the final wealth will meet or exceed the goal, revealing which of the portfolio plans are best and close to best with respect to the first criterion, to inform the investor for selecting portfolio plans for comparison in other aspects of prospects for the plan and goals, selection of a portfolio plan the investor judges optimal for his plan, goals, and priorities, and the investor's informed commitment to the choice.